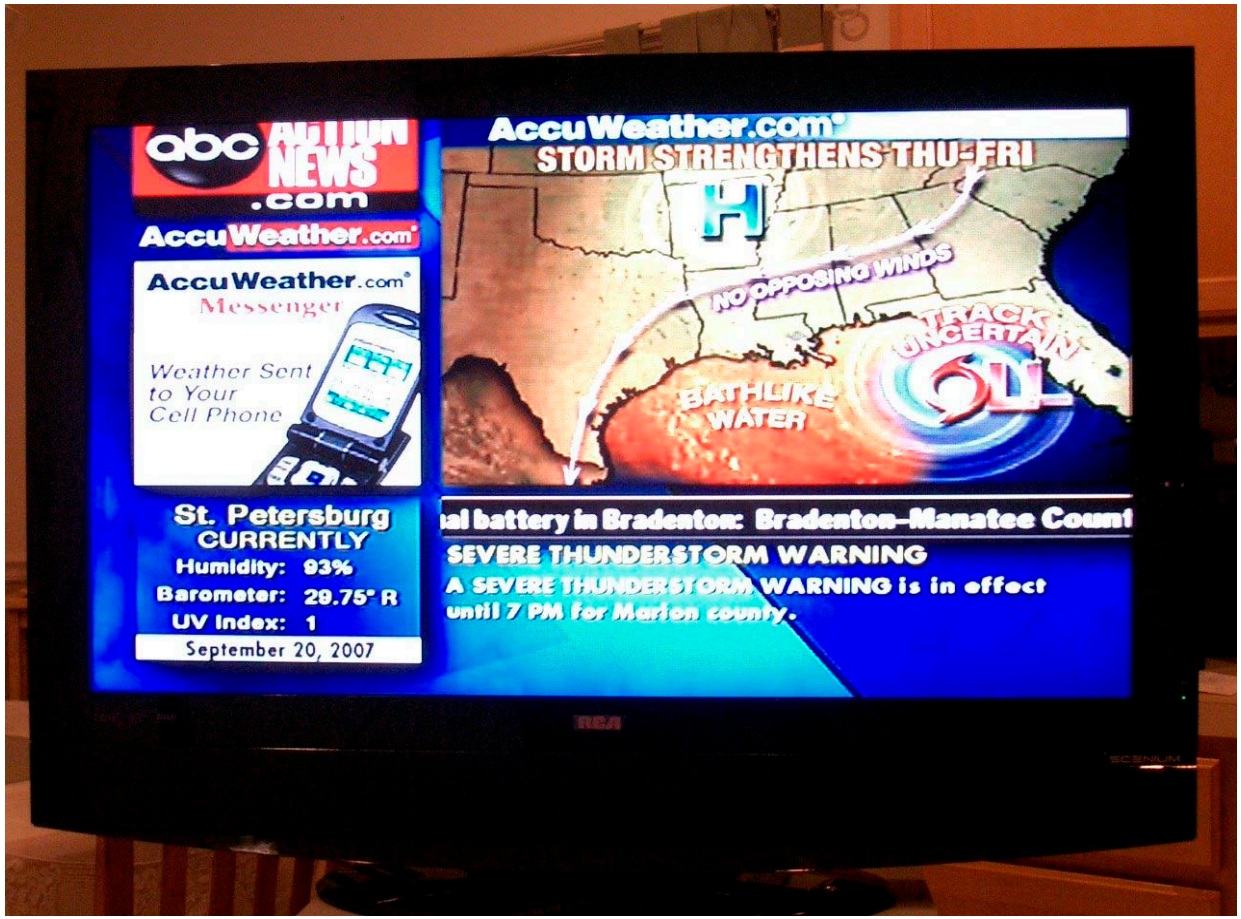
Disassembly of the LxxWD250

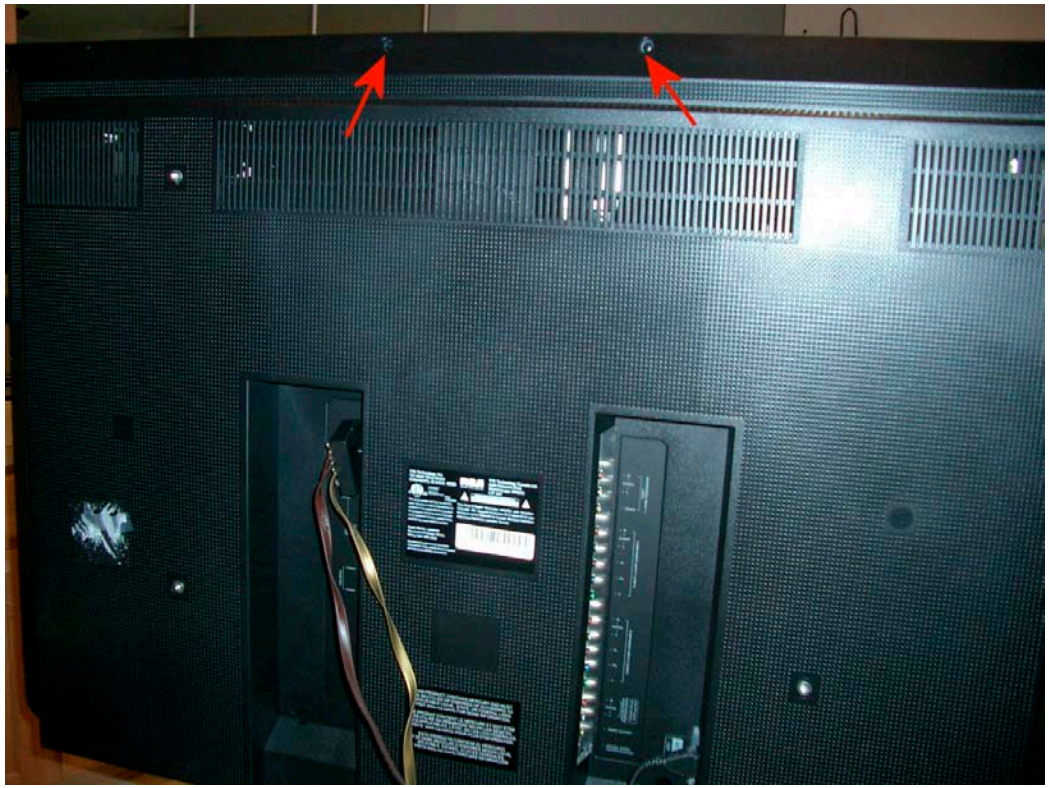
Disassembly of the LxxWD250

- Use the following disassembly instructions and you will not need to lay the unit down on it's front.



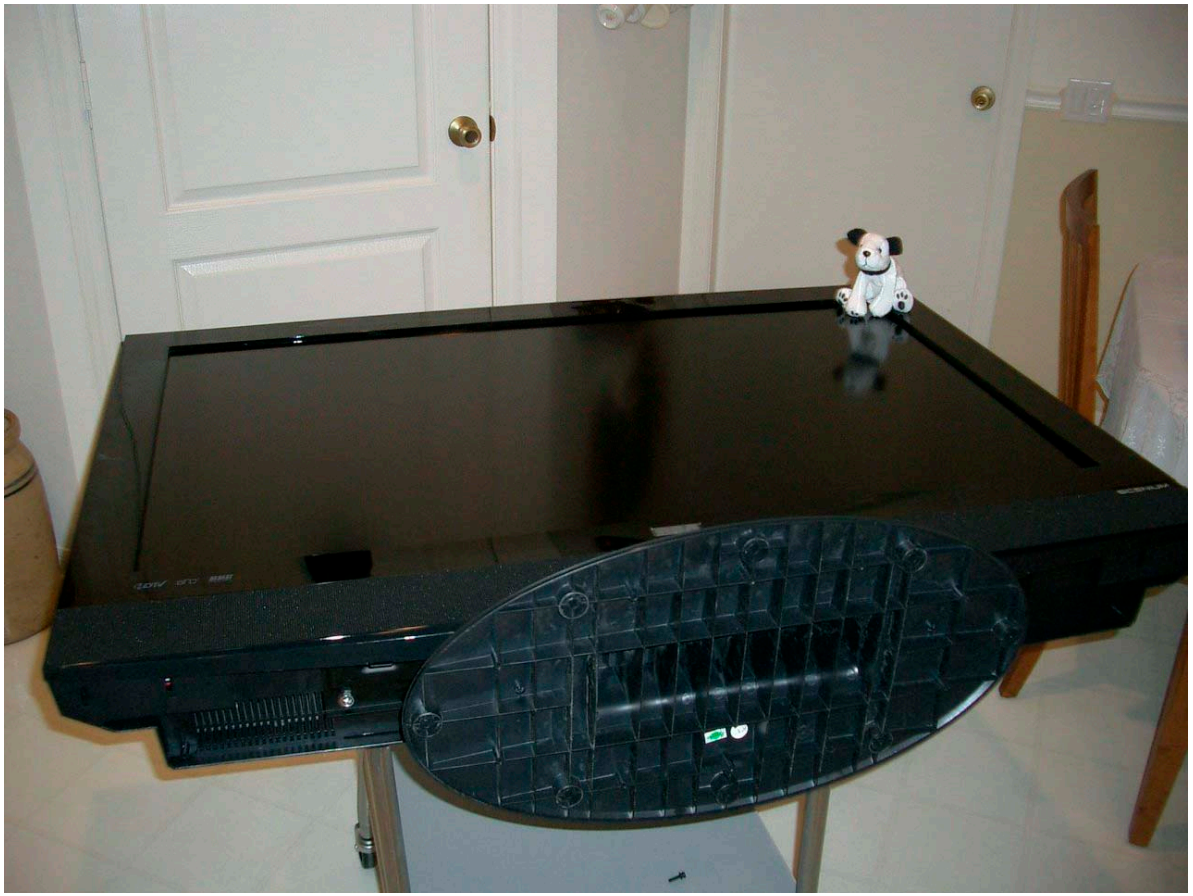
Disassembly of the LxxWD250

- Stand unit up right on work table.
- Remove all screws mark by an arrow. (8-14 depending on screen size)



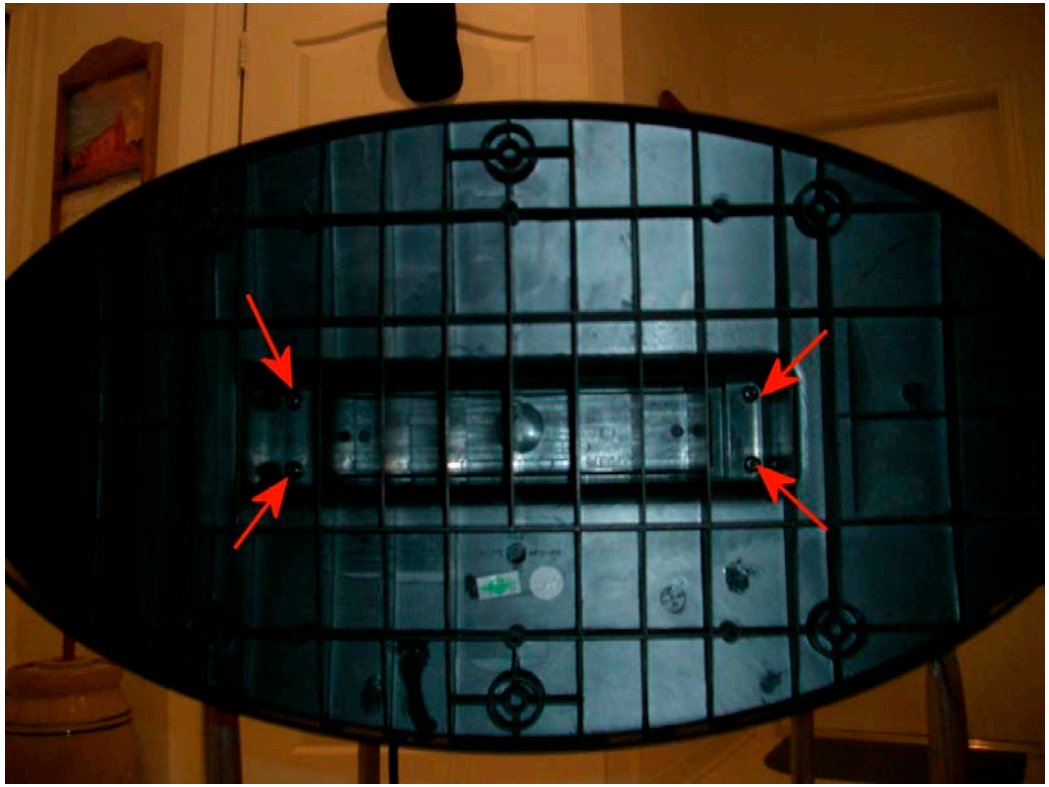
Disassembly of the LxxWD250

- Lay unit on back.



Disassembly of the LxxWD250

- Remove screws and base. (4 screws)



Disassembly of the LxxWD250

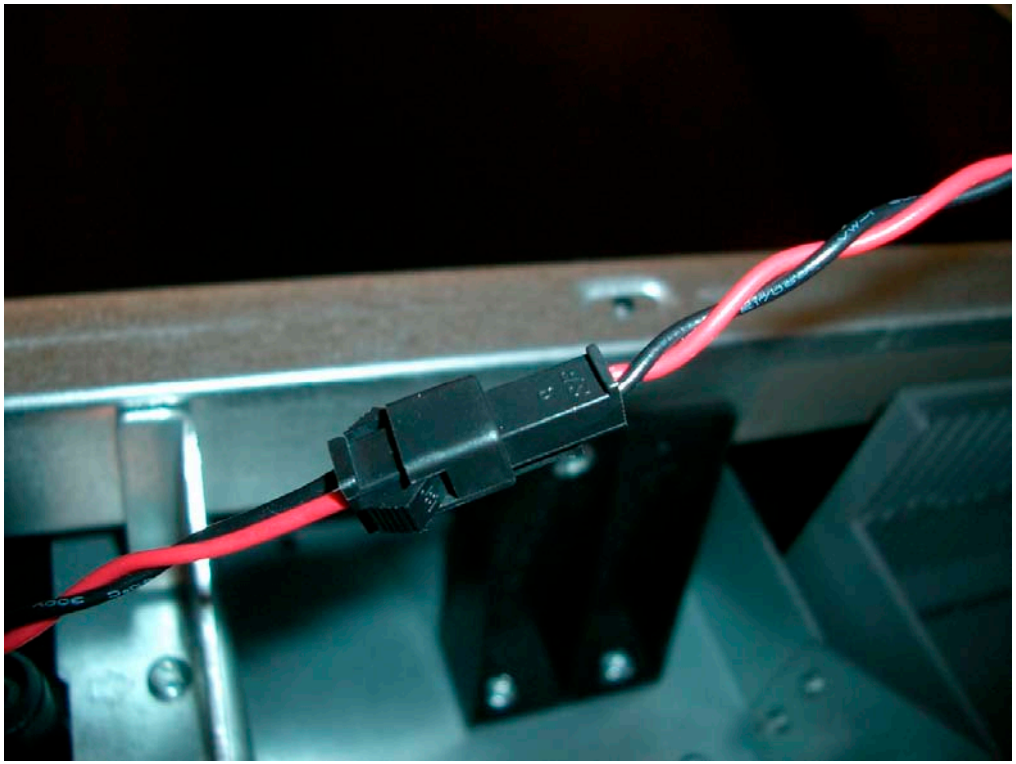
- From under base mounting plate remove 4 screws that hold mask (screen frame) in place.
- DO NOT remove large silver screws!

Disassembly of the LxxWD250

- Grasp bottom center of Mask (screen frame) and gently, slowly lift up and forward.

Disassembly of the LxxWD250

- Disconnect speaker wire connectors. (2 cables) Pay attention to which wire goes to left and right speakers.

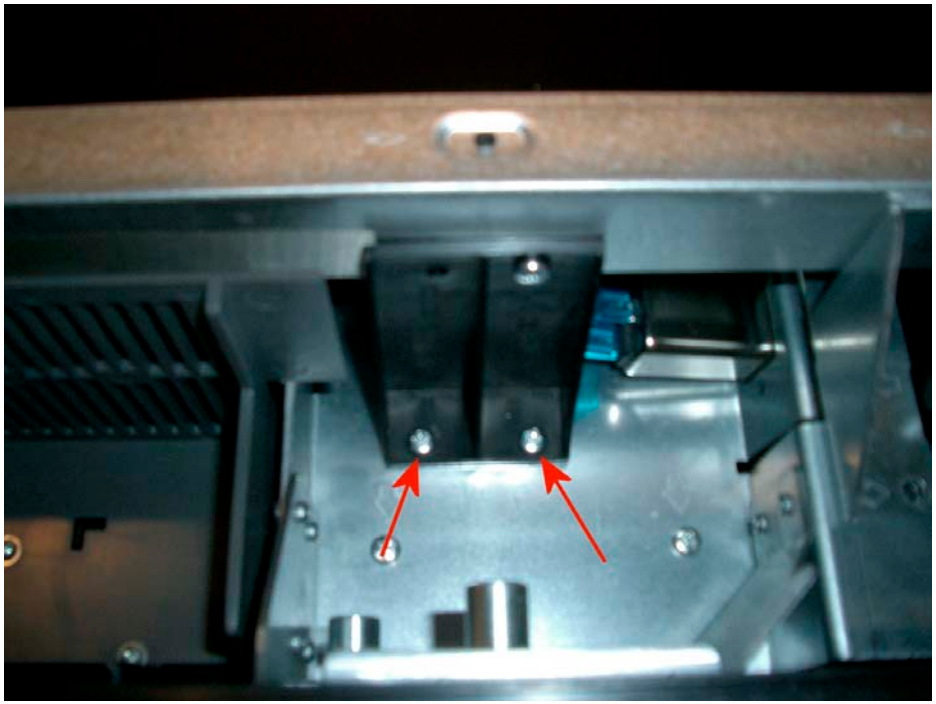


Disassembly of the LxxWD250

- Remove 2 screws from each display mount. 2 mounts on the left and the right side of display assembly. (Top right mount shown below)

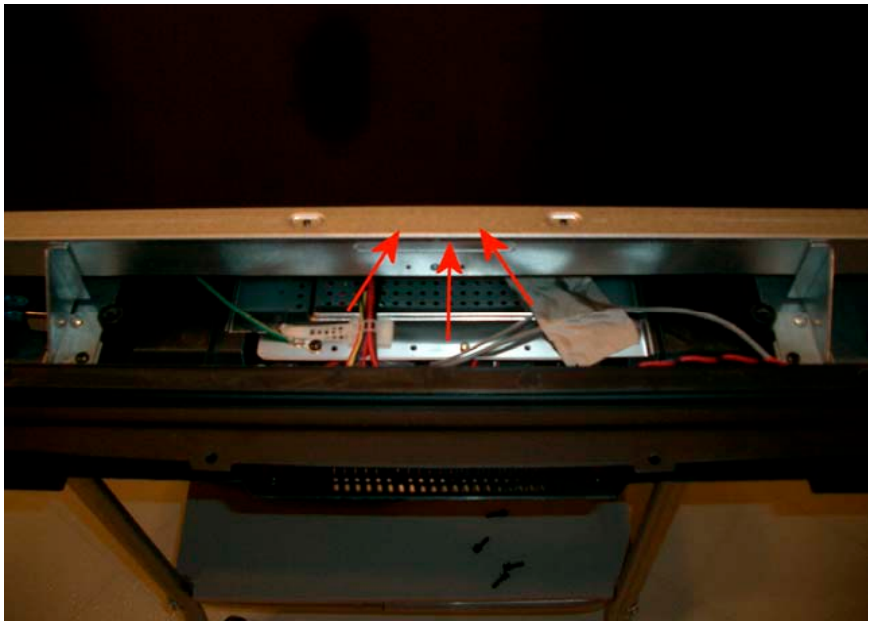
Disassembly of the LxxWD250

- Remove 2 screws each from the two bottom mounts of screen display assembly.
- DO NOT Remove any other screws from unit.



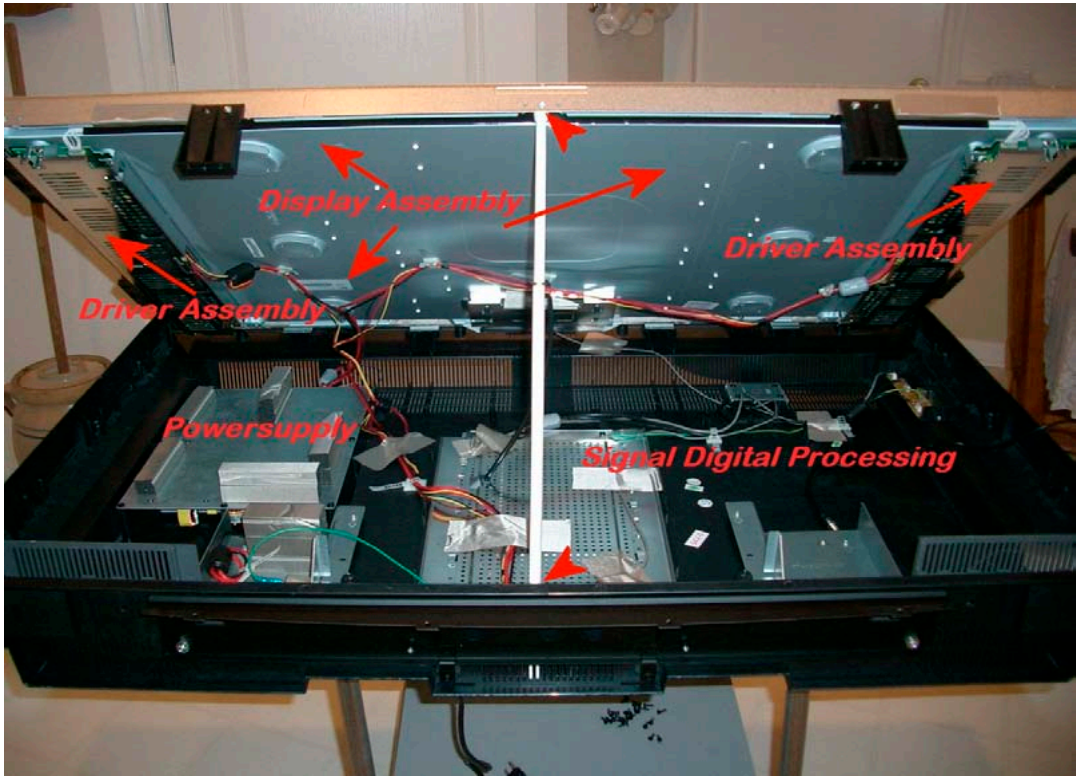
Disassembly of the LxxWD250

- Grasp bottom of display assembly and pull up and forward. Assembly will hinge upwards.
- Do not pull up more than 12 to 24 inches. Careful not to pull wires taught. You can pull plugs from connectors!

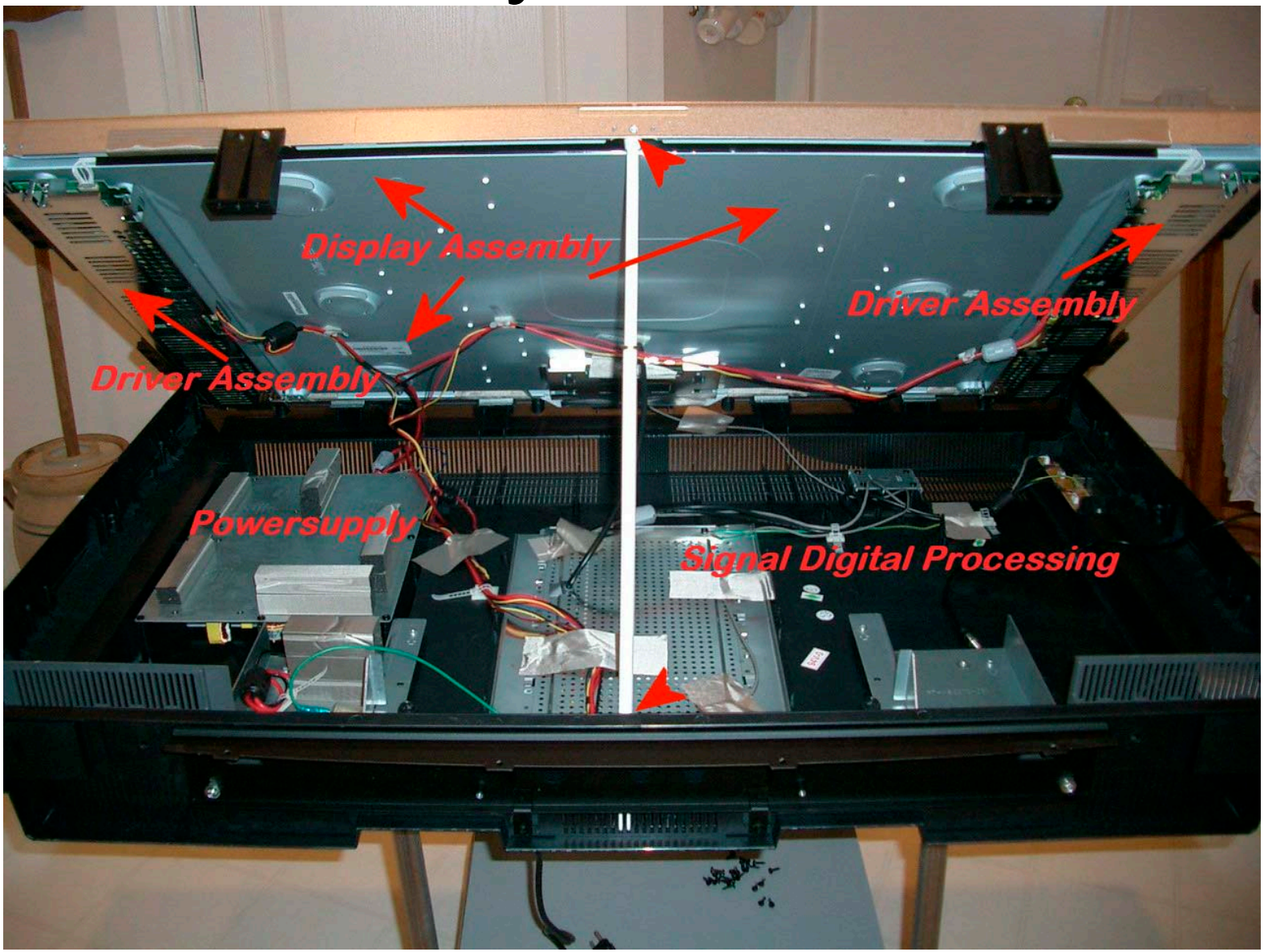


Disassembly of the LxxWD250

- Using a dowel rod or curtain rod that is 18 to 22 inches in length, ½ inch or larger diameter, prop up display assembly as shown in picture below.

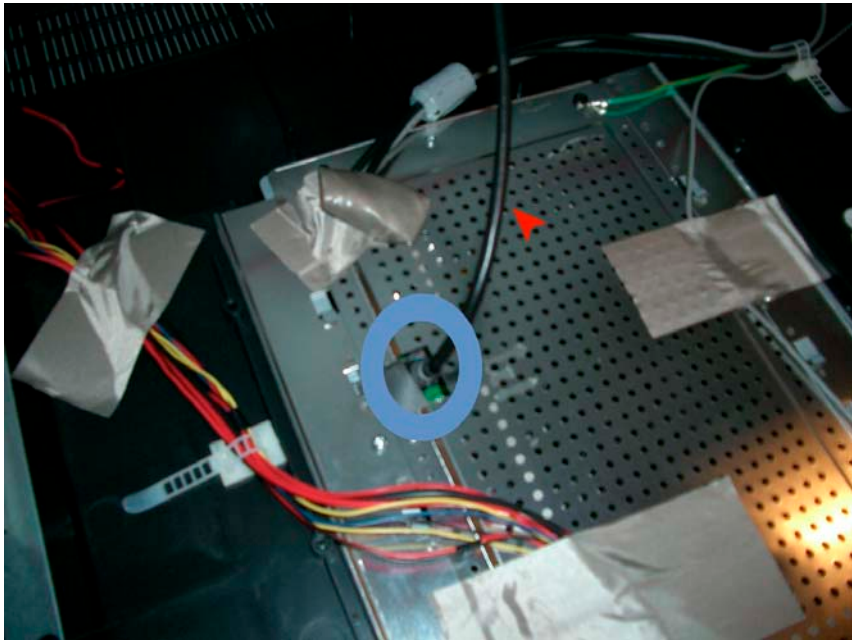


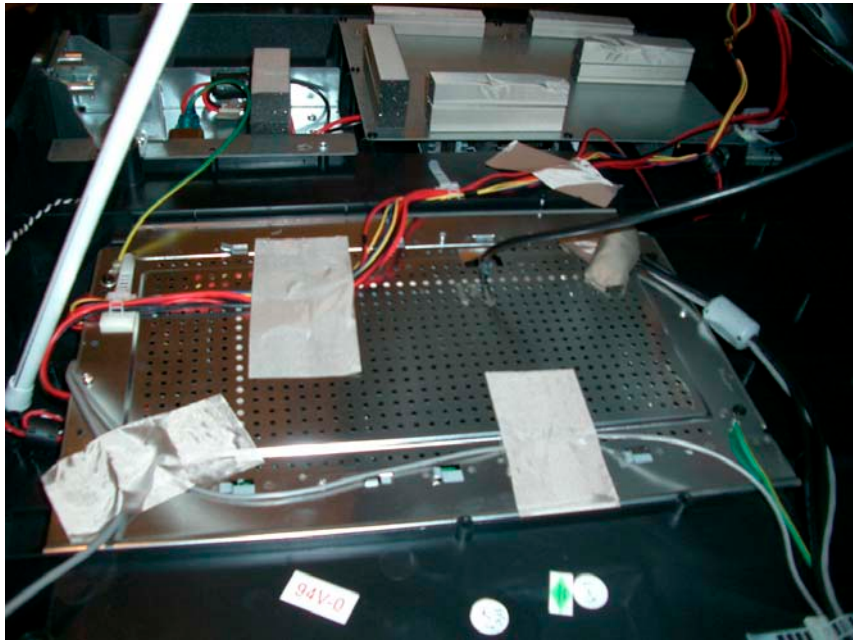
Disassembly of the LxxWD250



Disassembly of the LxxWD250

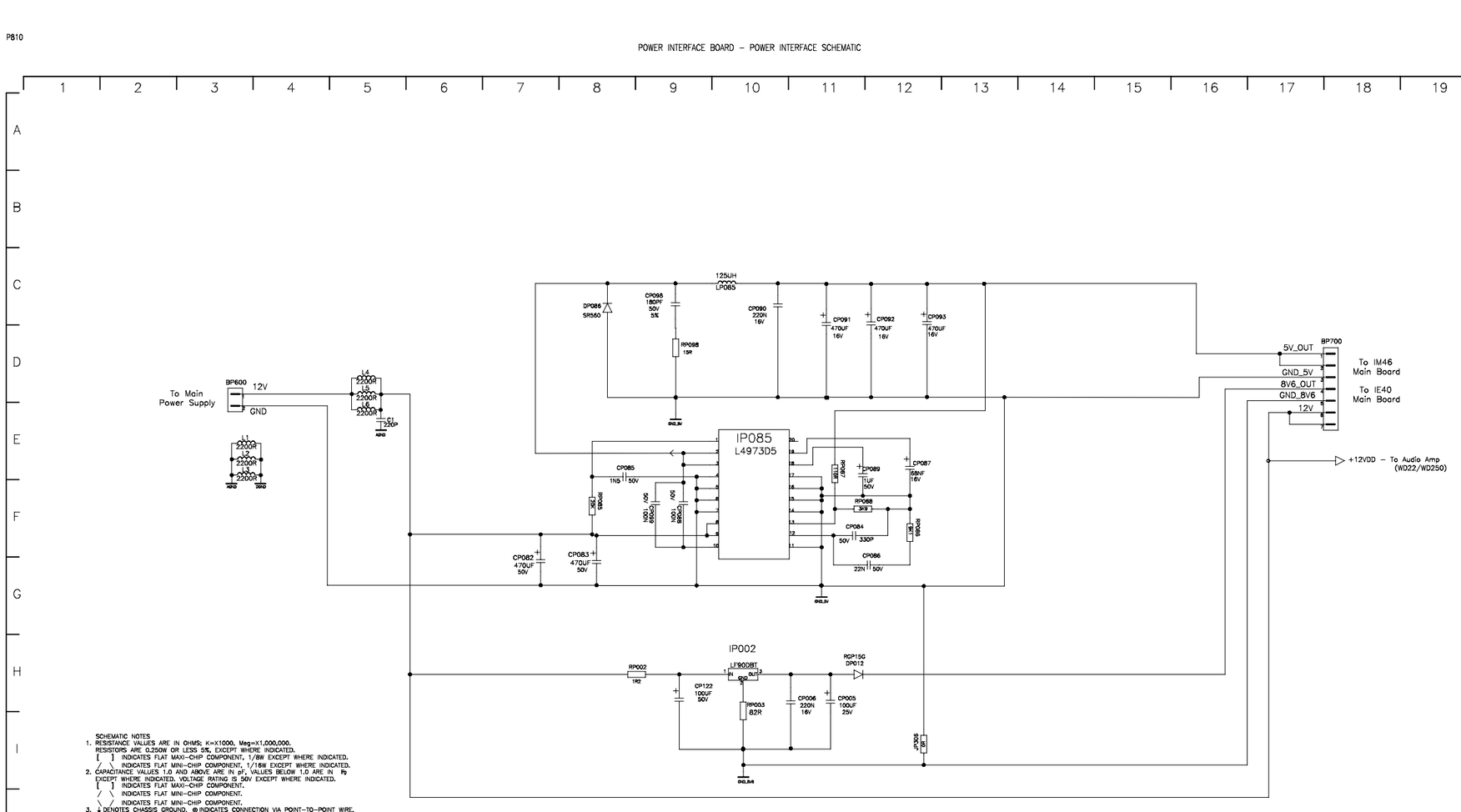
Careful not to pull cable too tight else plug will separate from connector!





P810

POWER INTERFACE BOARD – POWER INTERFACE SCHEMATIC



SCHEMATIC NOTES

1. RESISTANCE VALUES ARE IN OHMS; K=X1000, Meg=X1,000,000.
   RESISTORS ARE 0.25W OR LESS 5%, EXCEPT WHERE INDICATED.
   [ ] INDICATES FLAT MAXI-CHIP COMPONENT, 1/8W EXCEPT WHERE INDICATED.
   / \ INDICATES FLAT MINI-CHIP COMPONENT, 1/16W EXCEPT WHERE INDICATED.
2. CAPACITANCE VALUES 1.0 AND ABOVE ARE IN pF, VALUES BELOW 1.0 ARE IN µF
   EXCEPT WHERE INDICATED, VOLTAGE RATING IS 50V EXCEPT WHERE INDICATED.
   [ ] INDICATES FLAT MAXI-CHIP COMPONENT.
   / \ INDICATES FLAT MINI-CHIP COMPONENT.
   \ / INDICATES FLAT MINI-CHIP COMPONENT.
3. ⏚ DENOTES CHASSIS GROUND. ⊕ INDICATES CONNECTION VIA POINT-TO-POINT WIRE.
   ⊥ DENOTES ISOLATED GROUND.
   ⌒ INDICATES JUMPER WIRE.
   ⊷ INDICATES ZERO OHM CHIP COMPONENT.

ALL INTEGRATED CIRCUITS AND MANY OTHER SEMICONDUCTORS ARE ELECTROSTATICALLY SENSITIVE AND REQUIRE SPECIAL HANDLING TECHNIQUES DESCRIBED UNDER "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" IN THE SAFETY AND SERVICING PRECAUTIONS PUBLICATION.

PRODUCT SAFETY NOTE

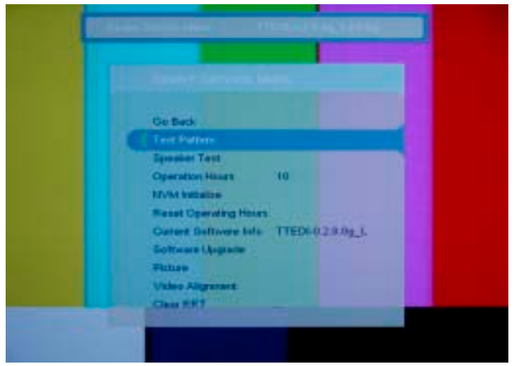
COMPONENTS WITH A ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THIS SERVICE DATA. DO NOT DEGRADE THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.

Page 9–1

P810
Alignments

Entering the Factory Service mode

Turn the instrument OFF. Then press the Vol - button on the remote and Vol - on the keypad simultaneously. Hold the buttons for approximately 10 seconds until the instrument turns ON. Using the remote if you want to select an item, press the Up (^) and Down (v) buttons. Adjust the setting value using the Left (<) and Right (>) key. Press the Clear button to return to the main menu after adjusting a value. Press the Clear button or select Go Back the menu to exit the Factory Service mode.



Main Menu

The Main Menu includes the following features:

Dealer Service Menu: This is at the very top of the screen. It contains the current software version loaded in the instrument.

Go Back: Returns to the previous menu.

Test Pattern: Menu will bring up color test screens.

Speaker Test: Press OK for a 5 second test tone.

Operating Hours: Displays the hours of operation

NVM Initialise: Clears the NVM. This function resets all customer settings to a out of box condition. Press the OK button to start the process.

Reset Operating Hours: Resets the operating hours to 0.

Current Software Info: Displays the current software version.

Software Upgrade: Allows for software upgrades.

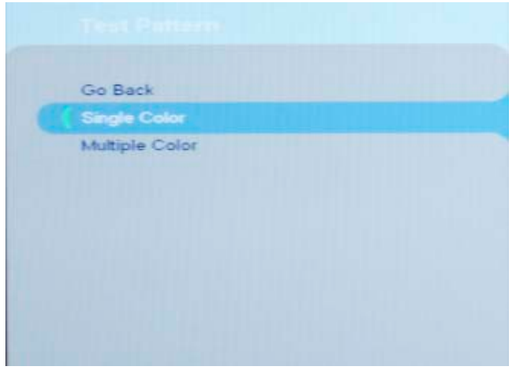
Picture: Customer Picture Menu

Video Alignment: Video Alignemt Menu

Clear RRT: Clears the Regional Ratings Table. Select OK to clear the table.

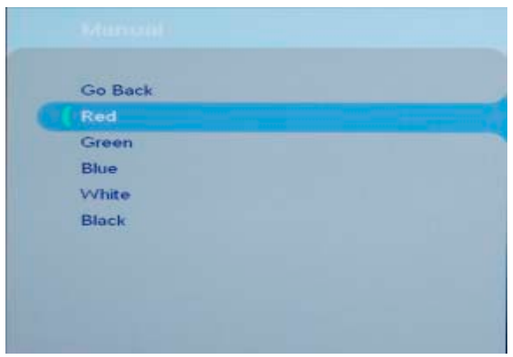
Test Pattern

The Test Pattern menu will display either a multiple color bar or a flat color screen. Each display will be visible for approxitimately 5 seconds. Use the arrow up or down on the remote to select Test Pattern from the menu. Then use the OK button on the remote to enter the next menu. Select Go Back to return to the previous menu.

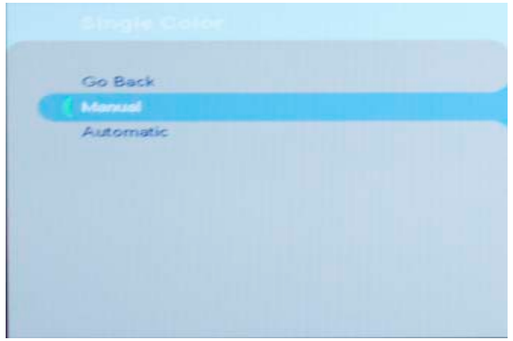


Single Color: Will bring up 2 options.

Manual: Select which color to display (Red, Green, Blue, White and Black). Press the OK button on the remote to display the pattern.



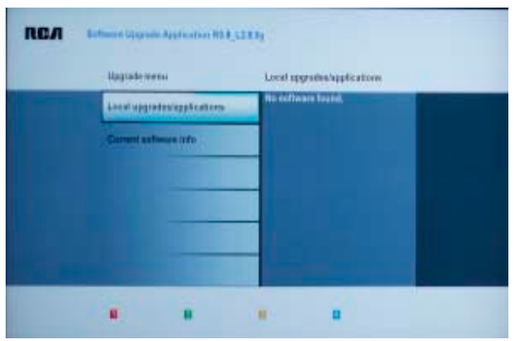
Automatic: Select, then select OK to scroll through the different color screens (Red, Green, Blue, White and Black). Will continue to scroll through the patterns until the OK button is press.



Multiple Color: Select, then select OK to display multiple bands of color.

Software Upgrade

Software upgrades are installed by the use of a generic USB device. Specific instructions related to software updates will be released within the software data package.

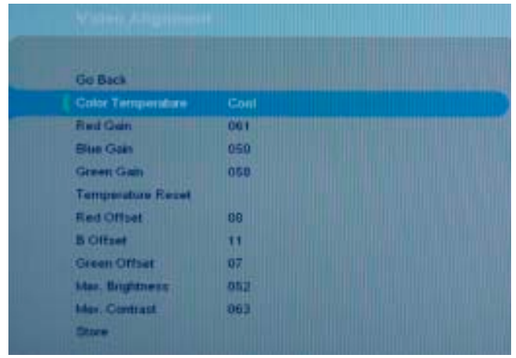


Local Upgrades/Applications: Will search for software up grades, then initiate the upgrade process.

Current Software Info: Displays the current software version and the date of install.

Video Alignment

The Cut Off alignment is used to define the color coordinates for low level luminance. The Whitepoint is used to define the color coordinates for bright luminance This alignment must be completed using Line Input (CVBS).



1. Enter the Factory Service mode.
2. Select VIDEO from the menu, then select Normal from the Color Temperature sub-menu.

NOTE: It is only necessary to perform the Cut Off and White Point Alignments with the Color Temperature set to the Normal position. The values for Cool and Warm are interpolated based on the Normal settings.

3. Insert a grey test pattern with a 10 to 20 Nits luminance level.
4. Using a Color TV Analyzer meaure the coordinates at the center of the screen. Adjust Red Offset, B Offset and Green Offset for x = 0.280 +/- 5%, y = 0.290 +/- 5%
5. Insert a 50IRE (or 150 nits) grey test pattern.
6. Using a Color TV Analyzer measure the coordinates at the center of the screen. Adjust R Gain, G Gain and B Gain for x = 0.280 +/- 5%, y = 0.290 +/- 5%.

NOTE: It may necessary to switch between the Cut Off and White Point Alignments in order to achieve the proper alignment.

8. Exit the Service Menu by press the Clear button on the remote.

P810
Alignments

Brightness Alignment

1. Enter the Factory Service mode.
2. Select VIDEO from the menu, then select Brightness.
3. Insert a pluge test pattern thru RF with a 2% setup background with a 0% and 4% bar.
4. Adjust the Brightness so that the 0% bar is invisible with the 4% bar visible.
5. Exit the Factory Mode by pressing Clear on the remote.

Peak White Adjustment

The Peak White alignment must be completed to the following standards.

1. Enter the Factory Service mode.
2. Select VIDEO from the menu, then select Peak White.
3. Input a test pattern with a 100% white centered pad on a dark background.
4. Using a Color TV Analyzer measure the luminance level (Y[nit]) of the white pad. Adjust with the Scaling Contrast the Light Output Level (PW Level) for 400 Nits + 20%/- 10%.

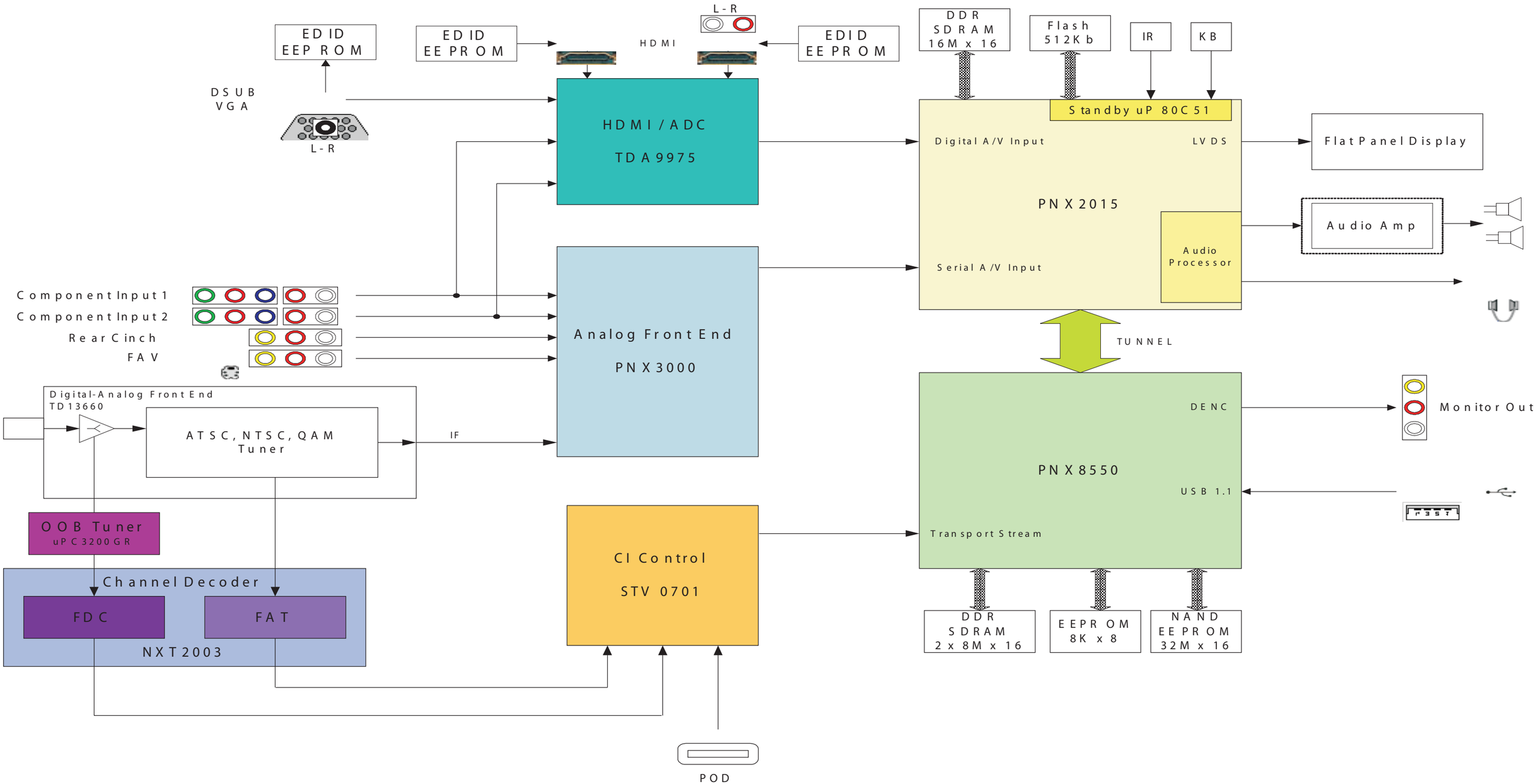
Defective Pixel Specification

A pixel is defined as three elements or dots, one red, one blue, and one green. Thus one bright pixel is three bright adjacent dots. No bright pixels are allowed but 3 bright dots are allowed subject to the following:

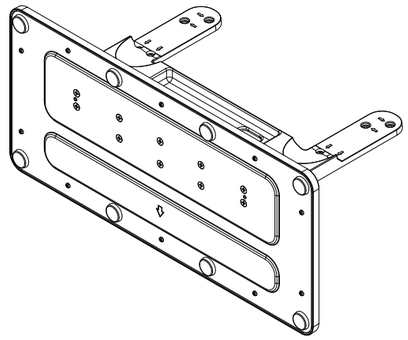
The bright dots must be viewable on normal program material (not static test patterns) when viewed at a distance of five feet from a point perpendicular to the center of the screen at eye level. The panel is considered defective if the pixels are viewable and they are within ¼" of another bright dot.

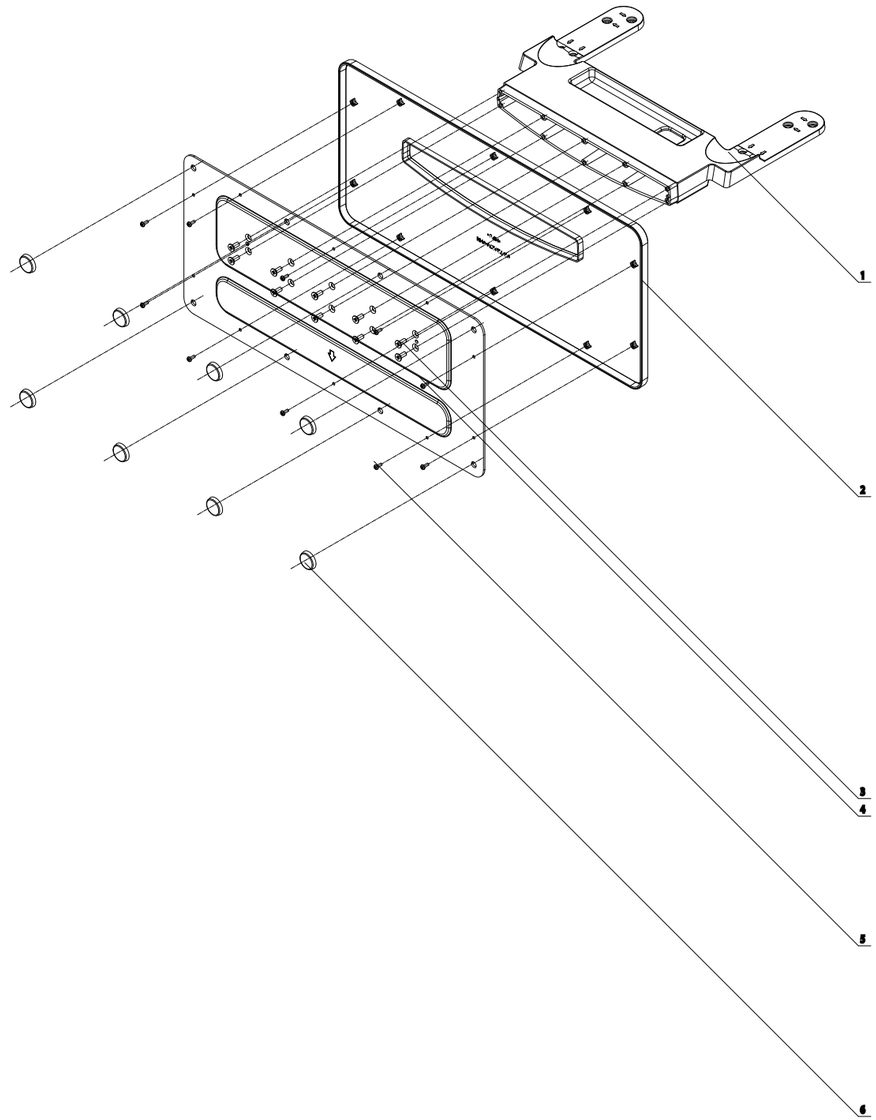
Also, no more than eight dark dots, and no dark pixels will be accepted when viewed under the same conditions.

P810 BLOCK DIAGRAM



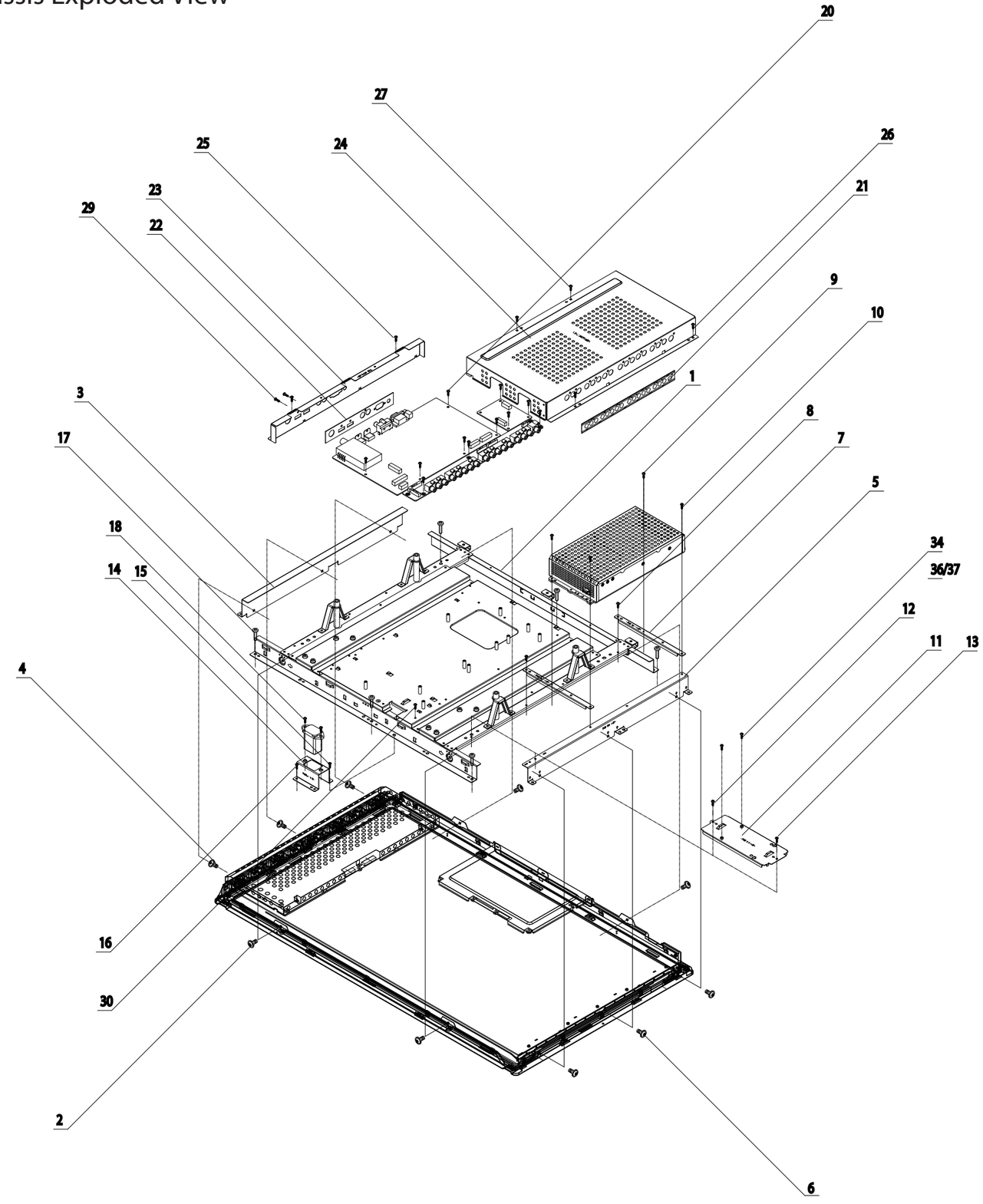
P810 Base Exploded View





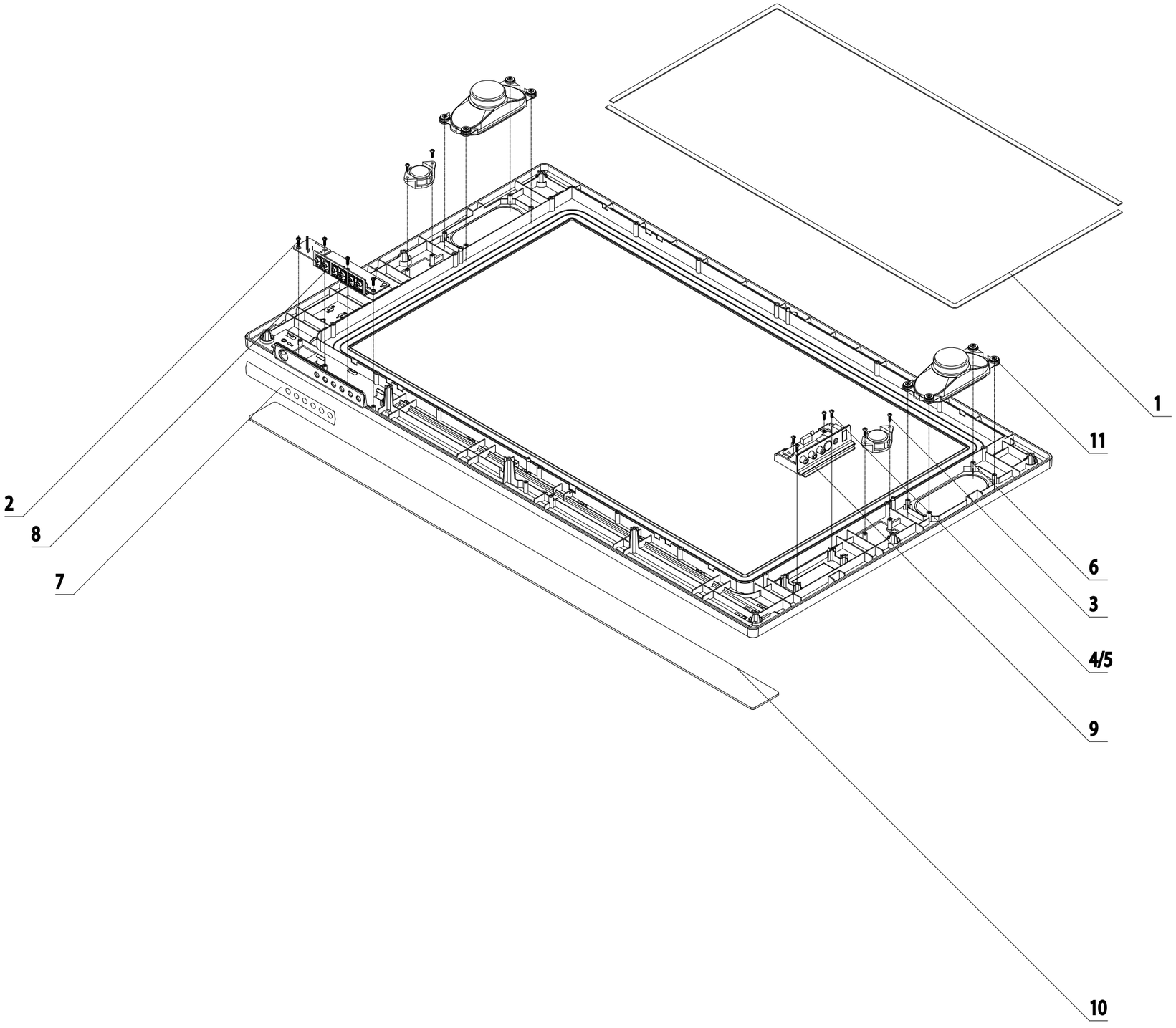
1	BRACKET FOOT
2	BASE
3	MACHINE SCREW
4	BASE PANEL
5	SCREW
6	FOOT PAD

P810 Chassis Exploded View



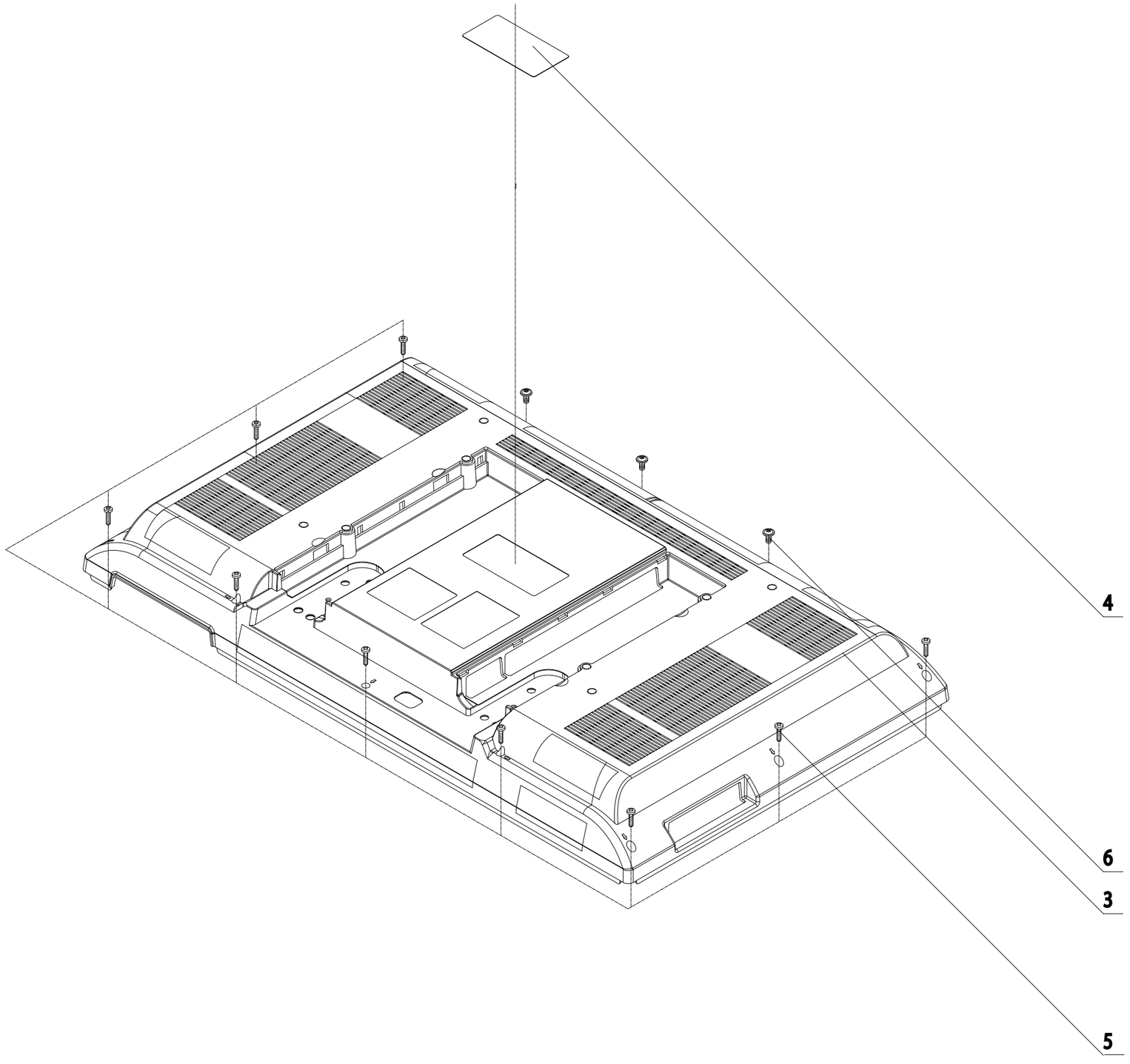
1	ASM BRACKET
2	SCREW M/C B 4 X 8
3	LEFT BRACKET
4	SCREW M/C B 4 X 8
5	RIGHT BRACKET
6	SCREW M/C B 4 X 8
7	BRACKET
8	SCREW TRIANGLE M/C B 3X8
9	SCREW TRIANGLE M/C B 3X8
10	SCREW TRIANGLE M/C B 3X8
11	POWER BRACKET
12	SCREW TRIANGLE M/C B 3X8
13	SCREW TRIANGLE M/C B 3X8
14	BRACKET
15	SCREW TRIANGLE M/C B 3X8
16	BRACKET POWER SOCKET
17	SCREW B 4 X 15 AB
18	SCREW M/C F 3 X 10
19	TWIST TIE NY66
20	SCREW TRIANGLE M/C B 3X8
21	SPONGE
22	SPONGE
23	TERMINAL BAR
24	SCREEN COVER
25	SCREW TRIANGLE M/C B 3X8
26	SCREW TRIANGLE M/C B 3X8
27	SCREW TRIANGLE M/C B 3X8
29	SCREW TRIANGLE M/C B 3X8
30	SCREW TRIANGLE M/C B 3X8
34	SCREW TRIANGLE M/C B 3X8
36	SPACER SUPPORT
37	FIBER SINK

P810 Front Cabinet Exploded View



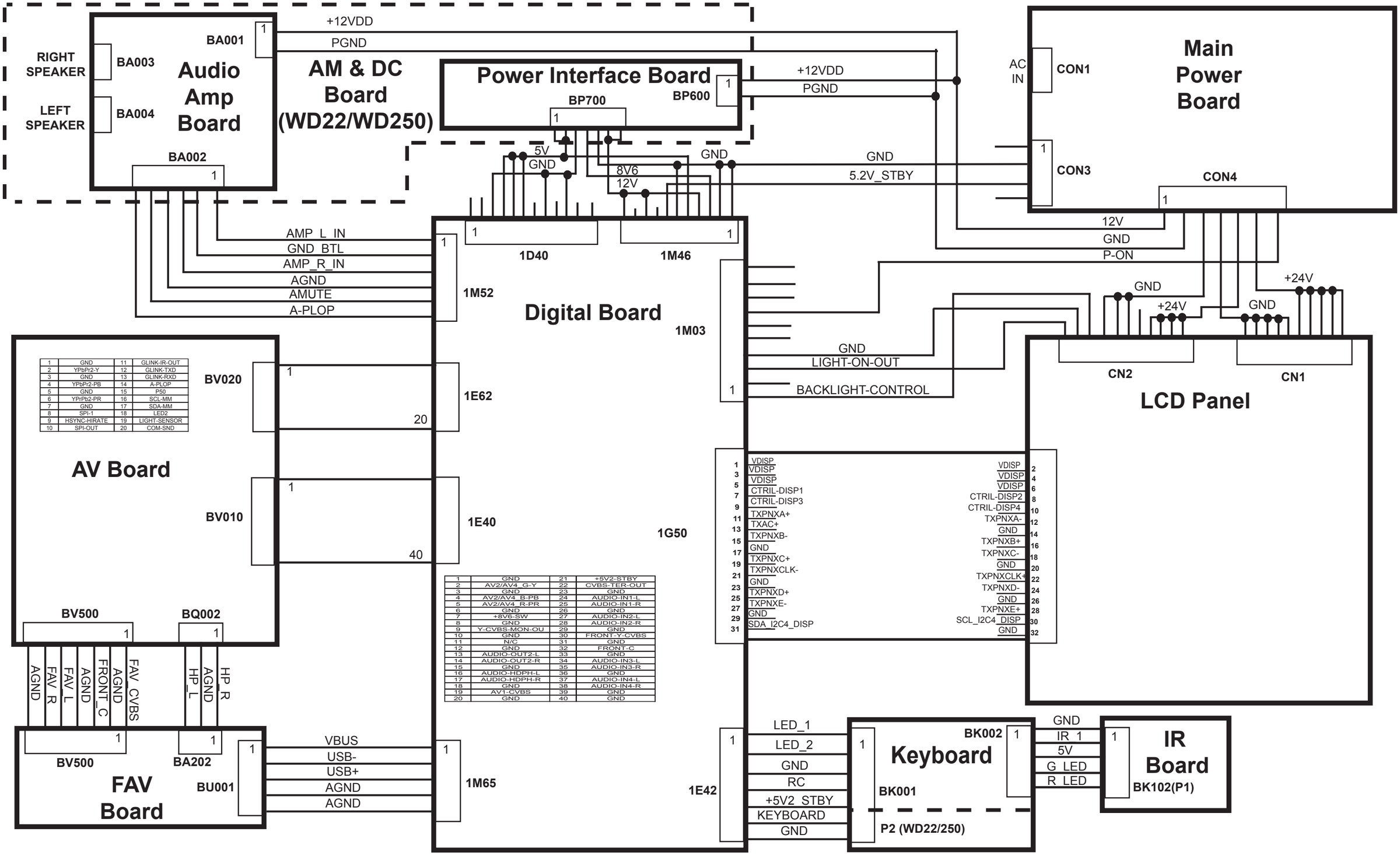
1	SPONGE
2	SCREW S/T B 3 X 8 AB
3	SCREW S/T B 3 X 10 AB
4	SCREW S/T B 3 X 10 AB
5	SCREW S/T B 3 X 10 AB
6	FRONT CABINET
7	INLAY KEY
8	PUSH BUTTON
9	REAR AV COVER
10	LUCENCY BAR
11	SCREW S/T B 3 X 10 AB

P810 Rear Cabinet Exploded View



3	REAR CABINET
4	MODEL PLATE
5	SCREW S/T B 4 X 15 AB
6	SCREW M/C B 4 X 8

P810 INTERCONNECT DIAGRAM

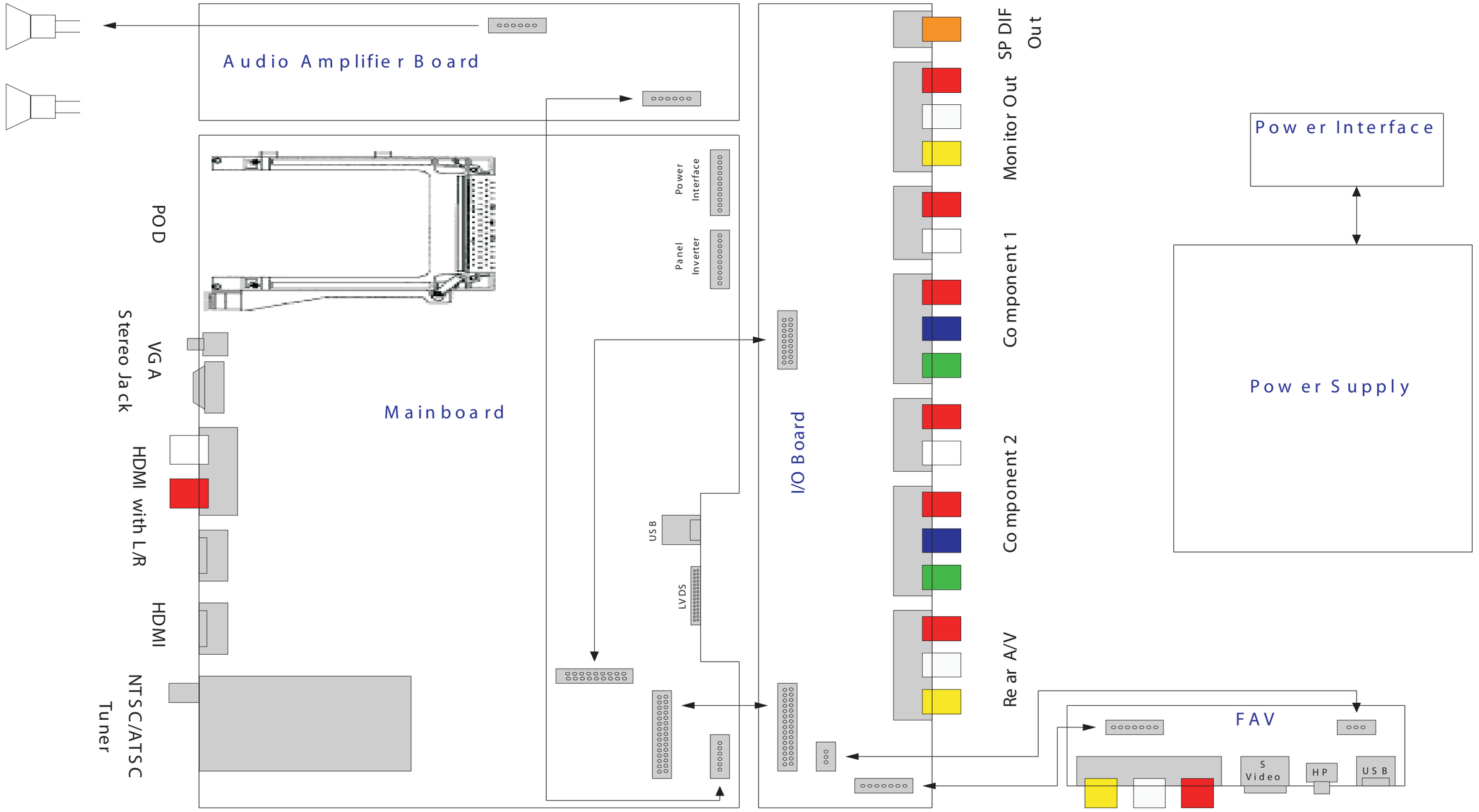


1	GND	11	GLINK-IR-OUT
2	YPbPr2-Y	12	GLINK-TXD
3	GND	13	GLINK-RXD
4	YPbPr2-PB	14	A-PLOP
5	GND	15	P50
6	YPrPb2-PR	16	SCL-MM
7	GND	17	SDA-MM
8	SPI-1	18	LED2
9	HSYNC-HIRATE	19	LIGHT-SENSOR
10	SPI-OUT	20	COM-SND

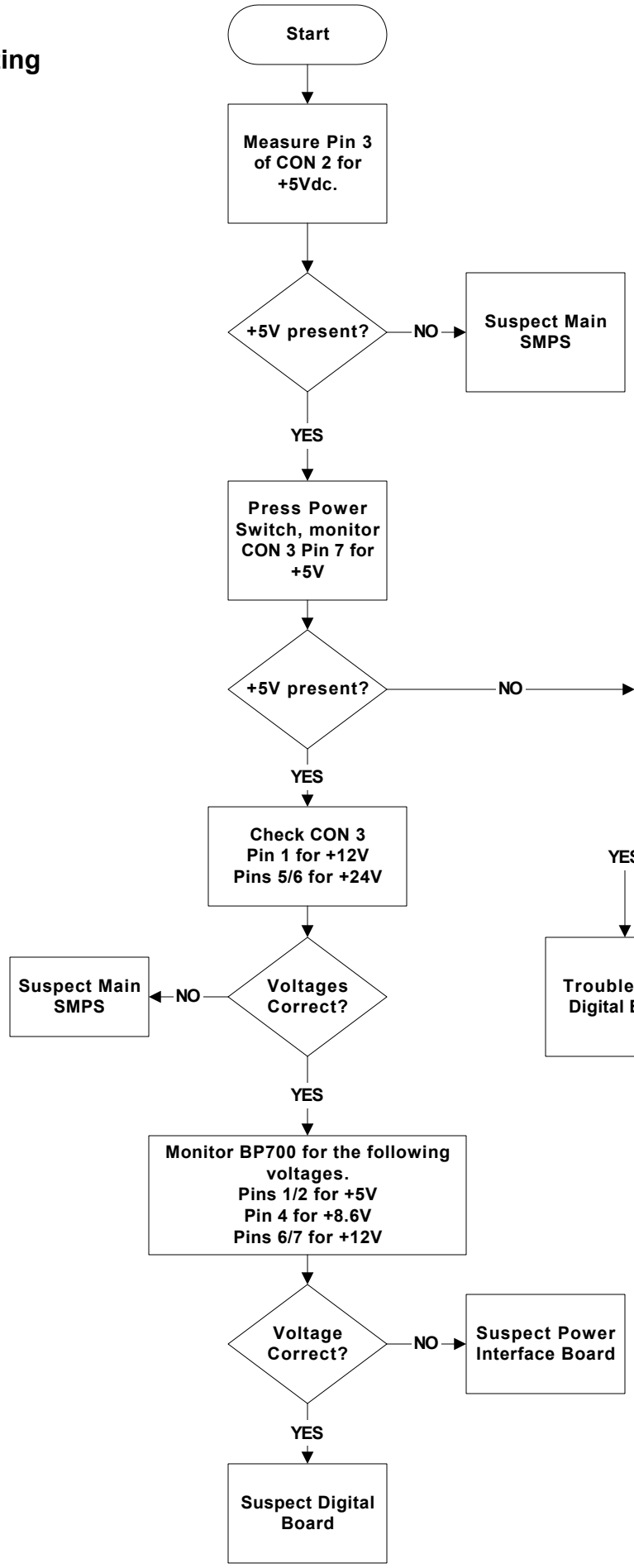
1	GND	21	+5V2-STBY
2	AV2/AV4_G-Y	22	CVBS-TER-OUT
3	GND	23	GND
4	AV2/AV4_B-PB	24	AUDIO-IN1-L
5	AV2/AV4_R-PR	25	AUDIO-IN1-R
6	GND	26	GND
7	+8V6-SW	27	AUDIO-IN2-L
8	GND	28	AUDIO-IN2-R
9	Y-CVBS-MON-OU	29	GND
10	GND	30	FRONT-Y-CVBS
11	N/C	31	GND
12	GND	32	FRONT-C
13	AUDIO-OUT2-L	33	GND
14	AUDIO-OUT2-R	34	AUDIO-IN3-L
15	GND	35	AUDIO-IN3-R
16	AUDIO-HDPH-L	36	GND
17	AUDIO-HDPH-R	37	AUDIO-IN4-L
18	GND	38	AUDIO-IN4-R
19	AV1-CVBS	39	GND
20	GND	40	GND

1	VDISP	2	VDISP
3	VDISP	4	VDISP
5	VDISP	6	VDISP
7	CTRIL-DISP1	8	CTRIL-DISP2
9	CTRIL-DISP3	10	CTRIL-DISP4
11	TXPNXA+	12	TXPNXA-
13	TXAC+	14	GND
15	TXPNXB-	16	TXPNXB+
17	GND	18	TXPNXC-
19	TXPNXC+	20	GND
21	TXPNXCLK-	22	TXPNXCLK+
23	GND	24	TXPNXD-
25	TXPNXD+	26	GND
27	TXPNXE-	28	TXPNXE+
29	GND	30	SCL_I2C4_DISP
31	SDA_I2C4_DISP	32	GND

P810 CONNECTOR LOCATION GUIDE DIAGRAM

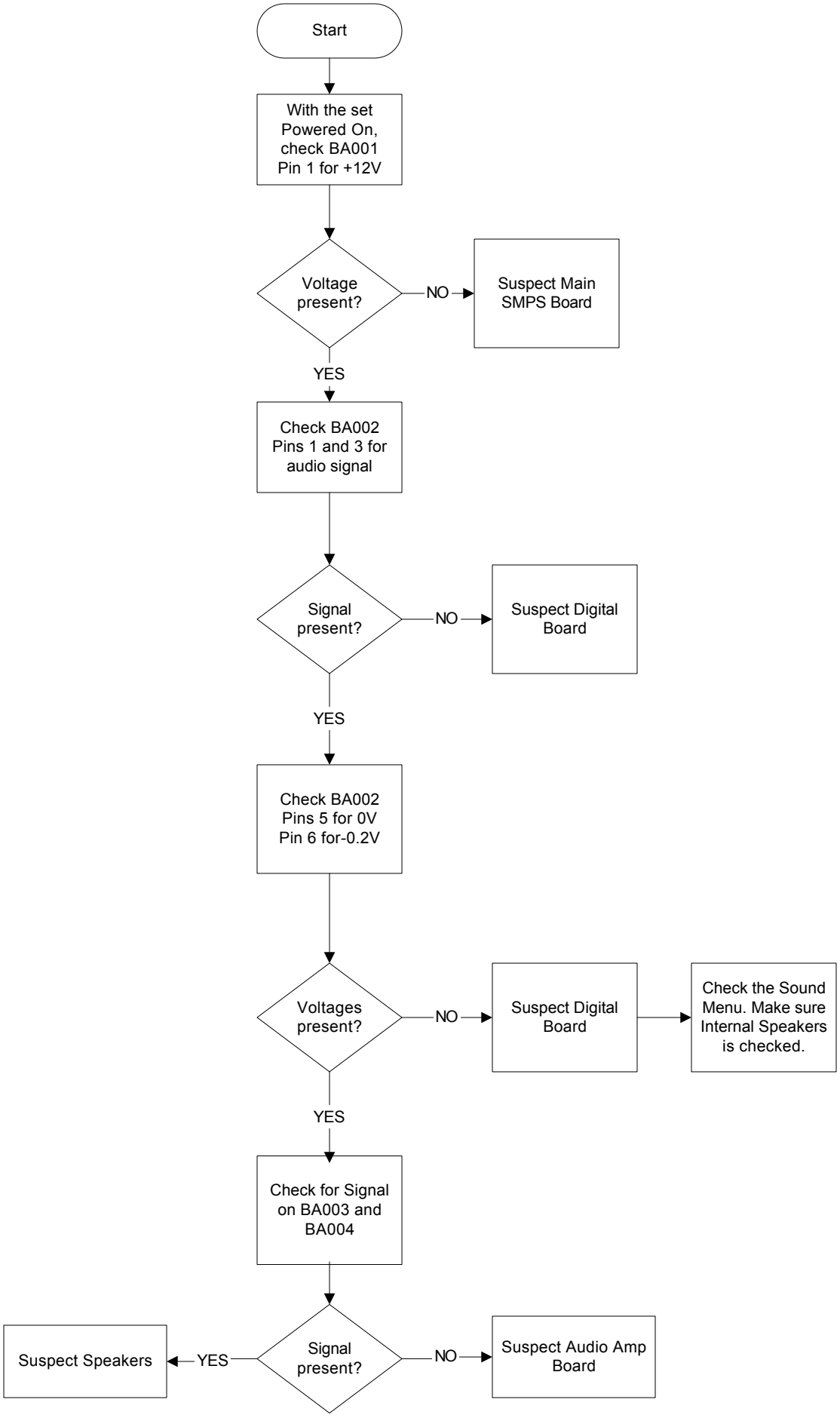


Dead Set Troubleshooting

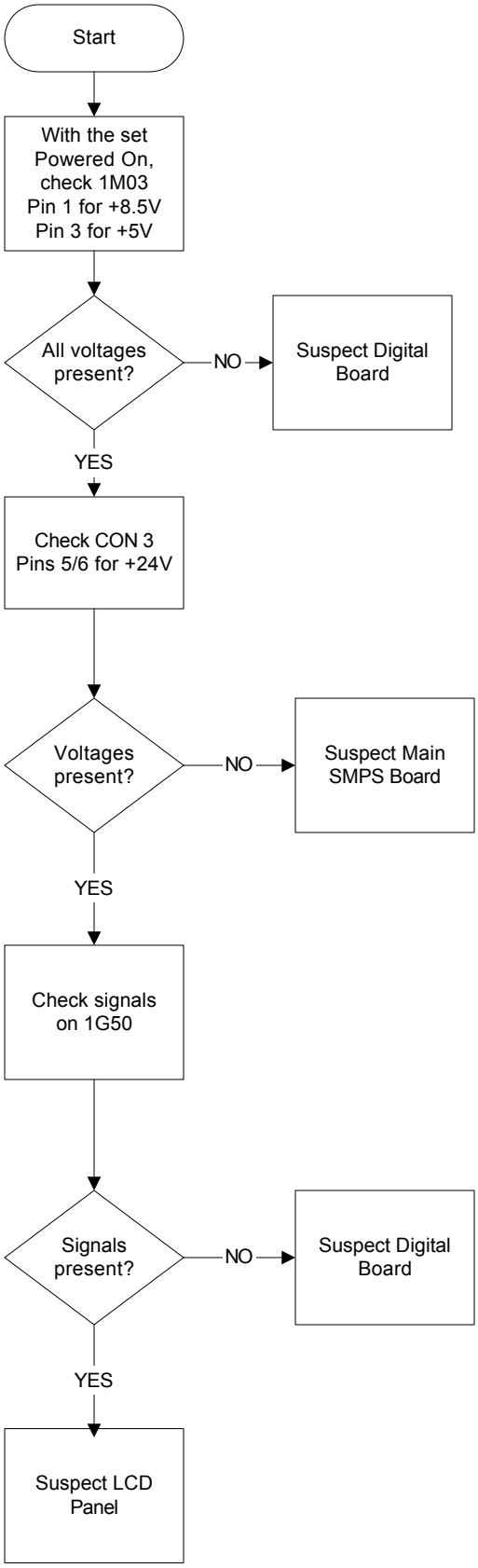


BK001	
Function	**DC Voltage**
Power	2.7
Channel +	1.4
Channel -	0.84
Volume +	2.2
Volume -	1.8
Menu	2.5
No Key Press	2.9

Video OK
No Audio



Sound OK
No Video



P810
VOLTAGE CHARTS
AUDIO AMP BOARD

BA001		BA002		BA003		BA004	
PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS
1	11.7	1	5.6	1	5.9	1	6.0
2	0.0	2	0.0	2	5.9	2	6.0
		3	5.5				
		4	0.0				
		5	0.01				
		6	-0.22				

AV BOARD

BQ002		BV010				BV020		BV500	
PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS
1	0.0	1	0.0	26	0.0	1	0.0	1	0.0
2	0.0	2	1.4	27	0.0	2	1.2	2	0.0
3	0.0	3	0.0	28	0.0	3	0.0	3	0.0
		4	1.4	29	0.0	4	1.2	4	0.0
		5	1.4	30	3.2	5	0.0	5	0.0
		6	0.0	31	0.0	6	1.2	6	0.0
		7	8.5	32	0.0	7	0.0		
		8	0.0	33	0.0	8	0.0		
		9	4.5	34	0.0	9	3.3		
		10	0.0	35	0.0	10	0.0		
		11	0.9	36	0.0	11	0.0		
		12	0.0	37	0.0	12	3.3		
		13	3.6	38	0.0	13	2.3		
		14	3.6	39	0.0	14	-0.22		
		15	0.0	40	0.0	15	3.2		
		16	0.0			16	0.0		
		17	0.0			17	0.0		
		18	0.0			18	4.5		
		19	0.0			19	0.41		
		20	0.0			20	3.2		
		21	4.9						
		22	0.0						
		23	0.0						
		24	0.0						
		25	0.0						

P810
VOLTAGE CHARTS

FRONT AV BOARD

BA202			BU001			BV500	
PIN #	DC VOLTS		PIN #	DC VOLTS		PIN #	DC VOLTS
1	0.0		1	5.1		1	0.0
2	0.0		2	0.0		2	0.0
3	0.0		3	0.0		3	0.0
			4	0.0		4	0.0
			5	0.0		5	0.0
						6	0.0
						7	0.0

IR BOARD

BK102 RUN			BK102 OFF	
PIN #	DC VOLTS		PIN #	DC VOLTS
1	0.0		1	0.0
2	3.3		2	3.3
3	4.9		3	4.9
4	1.8		4	1.8
5	0.21		5	2.0

LCD PANEL

CN1			CN2			CN1 (BACKLIGHT)	
PIN #	DC VOLTS		PIN #	DC VOLTS		PIN #	DC VOLTS
1	24.0		1	24.0		1	0.18
2	24.0		2	24.0		2	0.2
3	24.0		3	24.0			
4	24.0		4	24.0			
5	24.0		5	0.0			
6	0.0		6	0.0			
7	0.0		7	0.0			
8	0.0		8	0.0			
9	0.0		9	0.0			
10	0.0		10	0.0			
			11	8.4			
			12	5.1			

KEY BOARD

BK001			BK001 PIN 6			BK002 RUN			BK002 OFF	
PIN #	DC VOLTS		FUNCTION	DC VOLTS		PIN #	DC VOLTS		PIN #	DC VOLTS
1	2.2		POWER	2.7		1	0.0		1	0.0
2	4.5		CH +	1.4		2	3.3		2	3.3
3	0.0		CH -	0.84		3	4.9		3	4.9
4	3.3		VOL +	2.2		4	1.8		4	1.8
5	4.9		VOL -	1.8		5	0.21		5	2.0
6	2.9		MENU	2.5						
7	0.0									

P810
VOLTAGE CHARTS

MAIN BOARD

1D40		1G50				1E40				1E42		1E42 PIN 6		1E62		1M03		1M46		1M52		1M65	
PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	FUNCTION	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS	PIN #	DC VOLTS
1	NC	1	4.9	26	0.0	1	0.0	26	0.0	1	2.2	POWER	2.7	1	0.0	1	8.4	1	0.0	1	5.6	1	5.1
2	NC	2	4.9	27	NC	2	1.4	27	0.0	2	4.5	CH +	1.4	2	1.2	2	NC	2	0.0	2	0.0	2	0.0
3	0.0	3	4.9	28	NC	3	0.0	28	0.0	3	0.0	CH -	0.84	3	0.0	3	5.1	3	8.5	3	5.5	3	0.0
4	NC	4	4.9	29	0.0	4	1.4	29	0.0	4	3.3	VOL +	2.2	4	1.2	4	0.0	4	11.6	4	0.0	4	0.0
5	0.0	5	4.9	30	NC	5	1.4	30	3.2	5	4.9	VOL -	1.8	5	0.0	5	NC	5	5.1	5	0.01	5	0.0
6	NC	6	NC	31	NC	6	0.0	31	0.0	6	2.9	MENU	2.5	6	1.2	6	NC	6	0.0	6	-0.22		
7	5.1	7	0.0	32	0.0	7	8.5	32	0.0	7	0.0			7	0.0	7	4.8	7	4.9				
8	5.1	8	0.0			8	0.0	33	0.0					8	0.0	8	NC	8	NC				
9	5.1	9	0.0			9	4.5	34	0.0					9	3.3	9	NC	9	11.6				
10	0.0	10	0.0			10	0.0	35	0.0					10	0.0	10	NC	10	NC				
11	NC	11	0.0			11	0.9	36	0.0					11	0.0			11	11.6				
12	NC	12	1.2			12	0.0	37	0.0					12	3.3								
		13	1.2			13	3.6	38	0.0					13	2.3								
		14	0.0			14	3.6	39	0.0					14	-0.22								
		15	1.3			15	0.0	40	0.0					15	3.2								
		16	1.2			16	0.0							16	0.0								
		17	0.0			17	0.0							17	0.0								
		18	1.3			18	0.0							18	4.5								
		19	1.1			19	0.0							19	0.41								
		20	0.0			20	0.0							20	3.2								
		21	1.2			21	4.9																
		22	1.2			22	0.0																
		23	0.0			23	0.0																
		24	1.3			24	0.0																
		25	1.2			25	0.0																

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MAIN SMPS BOARD

BP600			BP700	
PIN #	AC VOLTS		PIN #	DC VOLTS
1	11.7		1	5.1
2	0.0		2	5.1
			3	0.0
			4	8.5
			5	0.0
			6	11.7
			7	11.7

POWER INTERFACE BOARD

CON1 (ACROSS PINS)			CON2			CON3	
PIN #	AC VOLTS		PIN #	DC VOLTS		PIN #	DC VOLTS
1	121.0		1	NC		1	11.9
2	121.0		2	0.0		2	0.0
			3	4.9		3	0.0
			4	NC		4	0.0
						5	24.0
						6	24.0
						7	4.8

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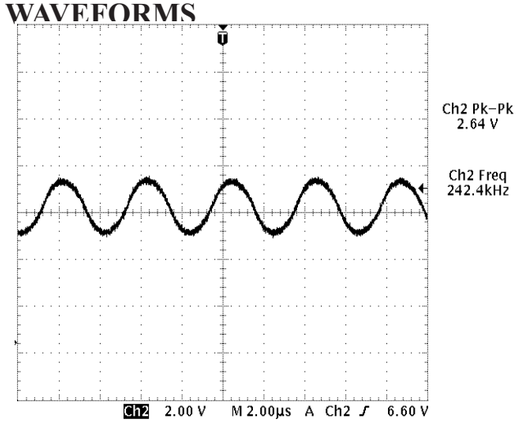
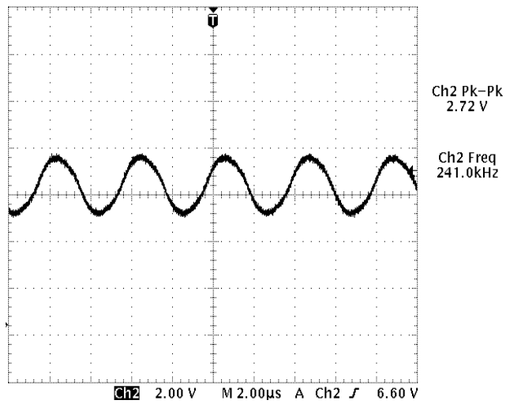
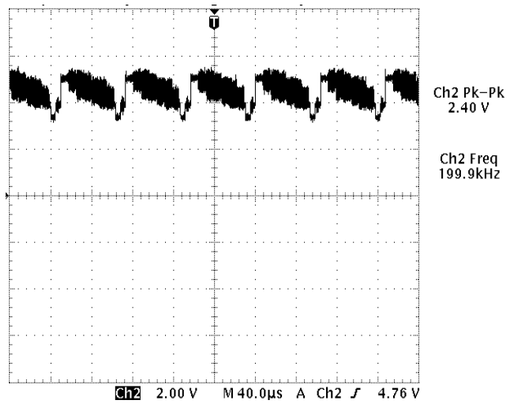
P810
WAVEFORMS



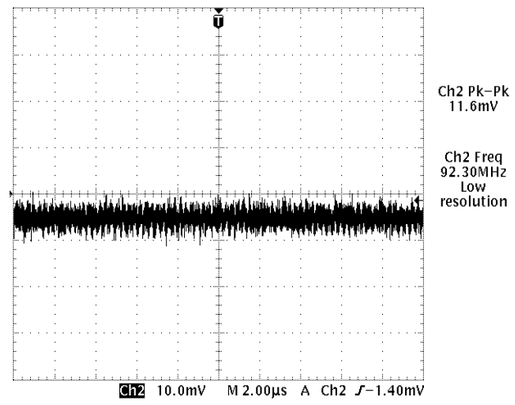
BA003 Pin 1 - Audio Amp Board



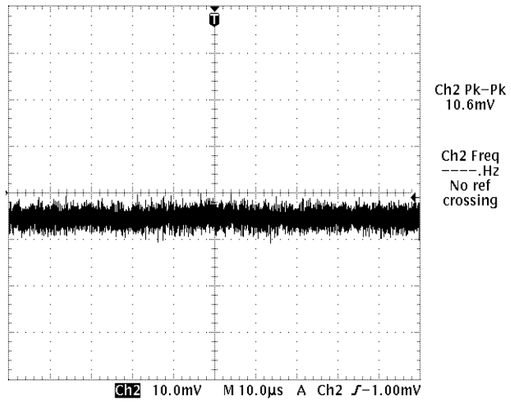
BA004 Pin 1 - Audio Amp Board



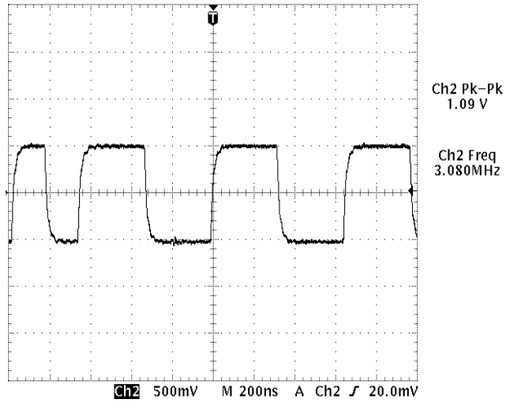
BV010 Pin 9 - AV Board
1E40 Pin 9 - Main Board



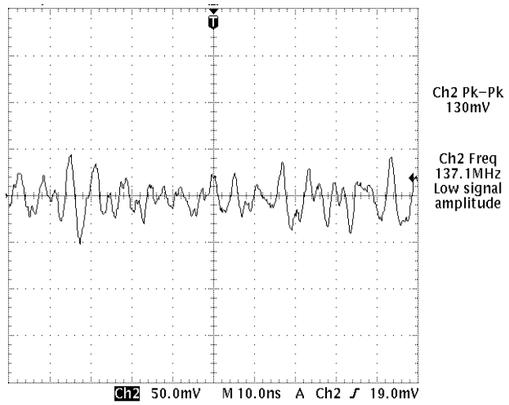
BV010 Pin 13 - AV Board
1E40 Pin 13 - Main Board



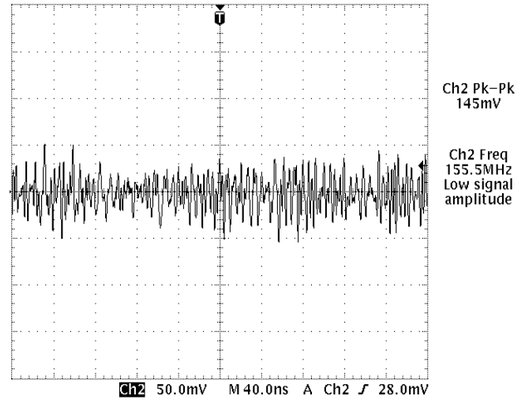
BV010 Pin 14 - AV Board
1E40 Pin 14 - Main Board



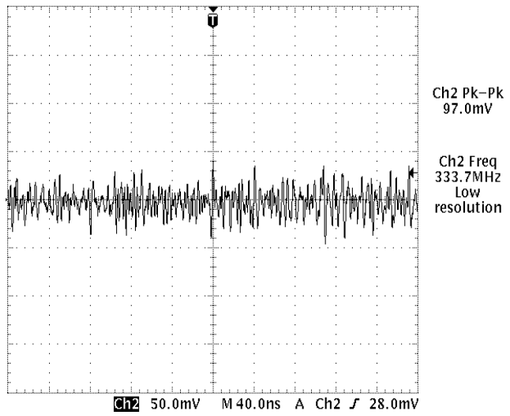
BV020 Pin 10 - AV Board
1E62 Pin 10 - Main Board



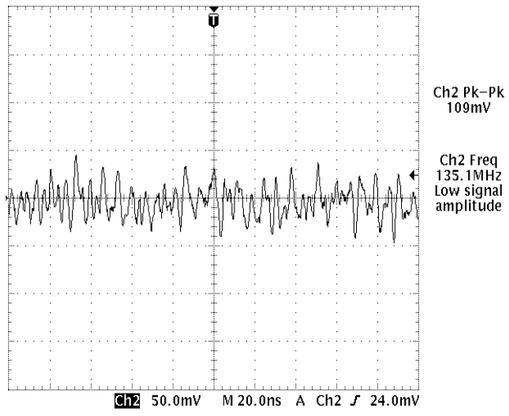
1G50 Pin 7 - Main Board



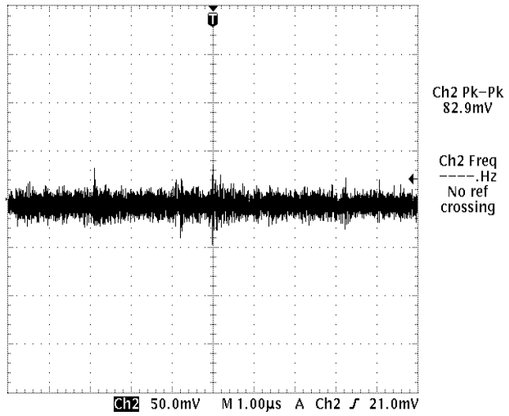
1G50 Pin 8 - Main Board



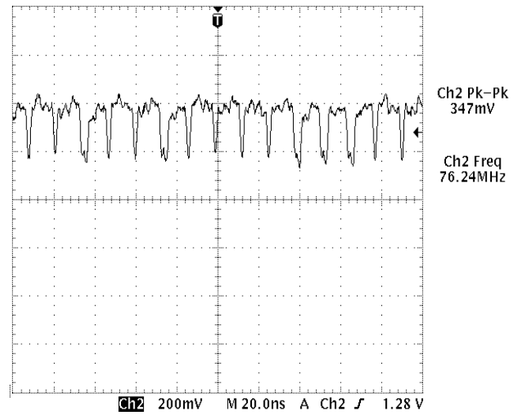
1G50 Pin 9 - Main Board



1G50 Pin 10 - Main Board

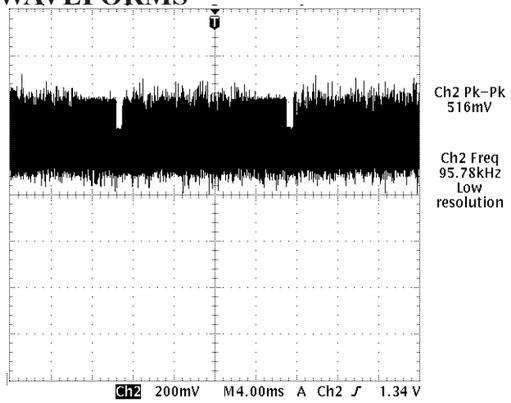


1G50 Pin 11 - Main Board

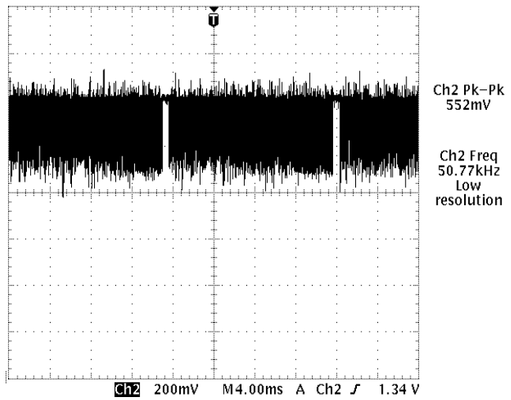


1G50 Pin 12 - Main Board

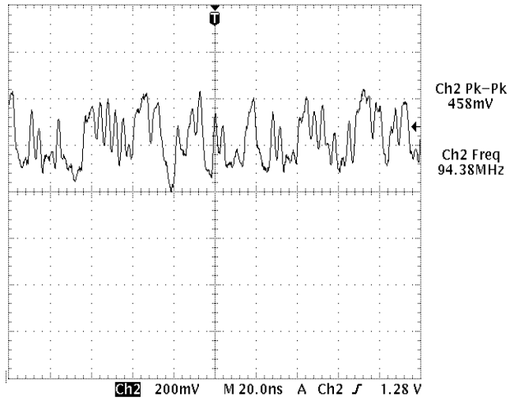
P810
WAVEFORMS



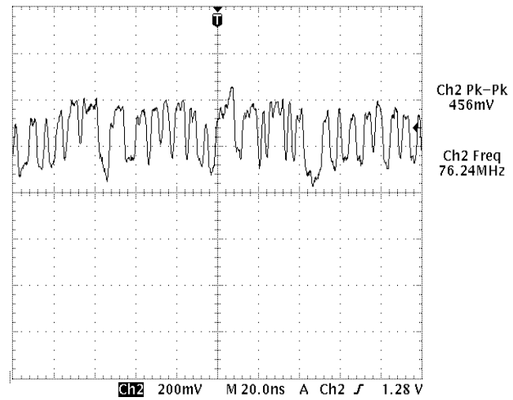
1G50 Pin 13 - Main Board



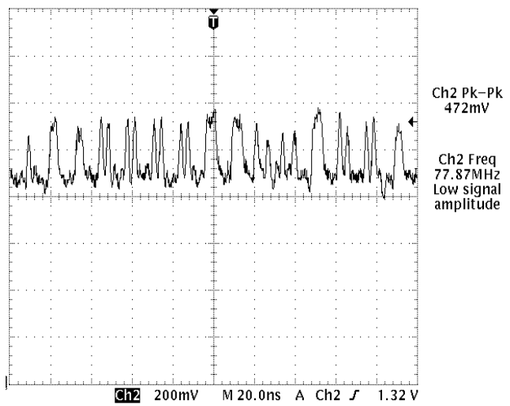
1G50 Pin 15 - Main Board



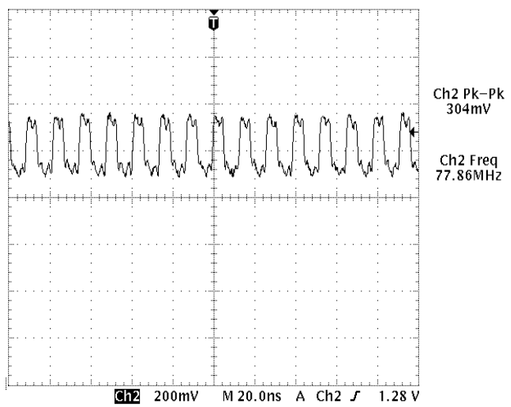
1G50 Pin 16 - Main Board



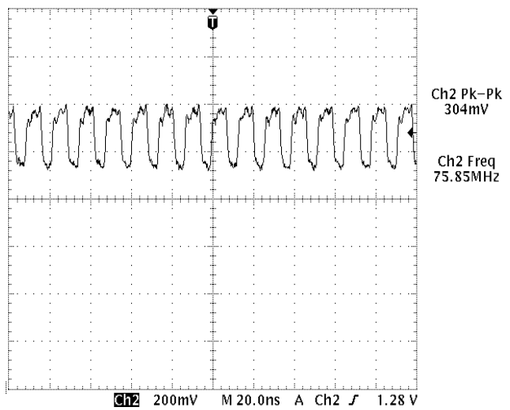
1G50 Pin 18 - Main Board



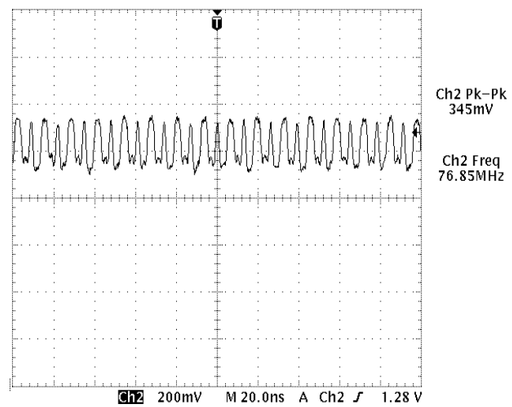
1G50 Pin 19 - Main Board



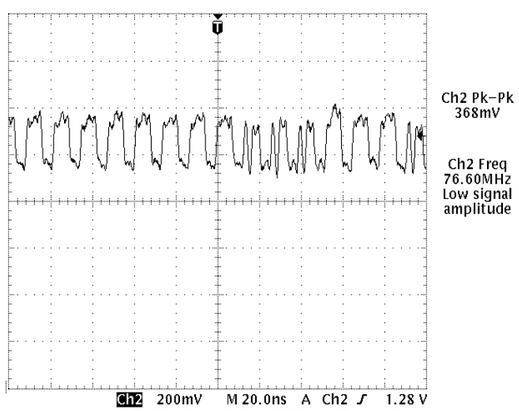
1G50 Pin 21 - Main Board



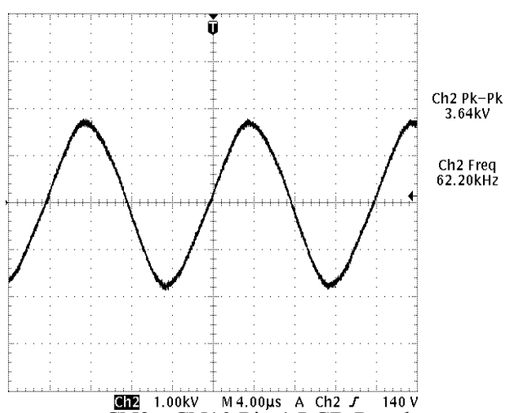
1G50 Pin 22 - Main Board



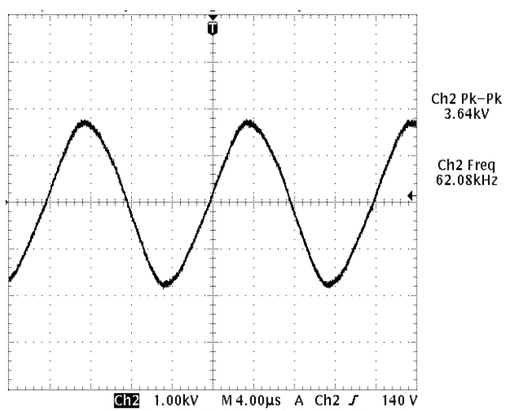
1G50 Pin 24 - Main Board



1G50 Pin 25 - Main Board



CN3 - CN10 Pin 1 LCD Panel



CN3 - CN10 Pin 2 LCD Panel